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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------------------------------------|-------------|----------------------|---------------------|------------------|
| 10/649,520 | 08/26/2003 | George G. Combs | PO-7922/LD-97-02 | 5797 |
| 157 | 7590 | 06/16/2004 | | |
| BAYER POLYMERS LLC 100 BAYER ROAD PITTSBURGH, PA 15205 | | | | |
| EXAMINER WOOD, ELIZABETH D | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 1755 | | | | |

DATE MAILED: 06/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

| | | |
|-------------------|------------------|----|
| Application No. | Applicant(s) | |
| 10649,520 | COMBS, GEORGE G. | |
| Examiner | Art Unit | ed |
| Elizabeth D. Wood | 1755 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 26-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 32-38 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/26/03
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date 06142004
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

Specification

The examiner has not checked the specification to the extent necessary to determine the presence of **all** possible minor errors (grammatical, typographical and idiomatic). Cooperation of the applicant(s) is requested in correcting any errors of which applicant(s) may become aware of in the specification, in the claims and in any future amendment(s) that applicant(s) may file.

Applicant(s) is also requested to complete the status of any copending applications referred to in the specification by their Attorney Docket Number or Application Serial Number, **if any**.

The status of the parent application(s) and/or any other application(s) cross-referenced to this application, **if any**, should be updated in a timely manner.

Election/Restriction

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-25 and 32-38, drawn to a catalyst composition (and method for the production thereof), classified in classes 502 and 423, subclasses vary.
- II. Claims 26-31, drawn to a process for making a polyol (and the polyol made), classified in classes 568 and 528, subclasses vary.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different

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product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the composition as claimed would be expected to have utility for materially different purposes such as metathesis.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Mrozinski on June 4, 2004 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-25 and 32-38. Affirmation of this election must be made by applicant in replying to this Office action. Claims 26-31 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-25 and 32-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,477,589 to van der Hulst et al.

Applicant's invention involves a DMC catalyst composition and several methods for the production thereof. The compounds being claimed are crystalline hydroxide containing DMC catalysts and they are made by methods involving oxide, hydroxide or strong acid starting materials.

van der Hulst et al. discloses hydroxide containing DMC catalyst compositions. They are made by a method that appears closely analogous to that being employed by applicant. See particularly the examples.

The reference differs from the instantly claimed invention in that the reference product is not stated to be crystalline.

It is considered, however, that the instantly claimed composition and method for the production thereof would have been obvious because the method of producing the claimed and reference products are similar, so therefore the skilled artisan would expect both products to share characteristics such as crystallinity. Furthermore, the examiner points out that in this field of technology, "crystalline" does not always mean 100% crystalline character and therefore, absent a definition of the degree of crystallinity or reference to an XRD pattern, any crystallinity at all in a product would be considered to read on the instantly claimed composition.

Claims 1-5, 11, 18 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over the Kuyper et al. article.

These claims recite a crystalline, hydroxide containing DMC compound.

The reference disclosure teaches hydroxide containing DMC catalysts that appear to have crystalline character based upon XRD analysis presented by Kuyper. Kuyper et al. differ from the instant claims in that they do not set forth the process by which the catalyst is made, and applicant's claims are set forth in product-by-process format. However, it is considered that the instantly claimed composition would have been obvious because it does not appear to differ substantively from that disclosed by the reference. It is well-settled that when compositions are so similar as to have been obvious and merely appear to differ in the manner of manufacture, that it is appropriate for the examiner to shift the burden to the applicant for the demonstration of a distinction between the claimed invention and the prior art.

Any minor differences in the limitations of the dependent claims have been considered. This statement is meant to include limitations such as the organic ligand or the particular metals selected. These are well known limitations in this field of technology and would have been expected selections by the skilled artisan as they are fairly shown by the prior art of record.

Furthermore, any such differences are deemed to be result-effective variables that one of ordinary skill in the art would be expected to manipulate to advantage. Additionally, such limitations can be considered to have been simply known as conventional to the artisan practicing in the art at the time the invention was made and/or were common practices which were so well known in the art that they would have been taken for granted. MPEP 706.02(a).

If applicant believes that one or more limitations are critical to the invention, then applicant should amend the claims to reflect such critical limitations as well as indicate where in the specification such critical limitations were discussed and demonstrated.

The limitations of all claims have been considered and are deemed to be within the purview of the prior art.

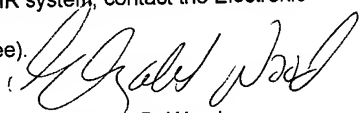
Conclusion

Applicants are advised that any evidence to be provided under 37 CFR 1.131 or 1.132 and any amendments to the claims and specification should be submitted prior to final rejection to be considered timely. It is anticipated that the next office action will be a final rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth D. Wood whose telephone number is 571-272-1377. The examiner can normally be reached on M-F, 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on 571-272-1364. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth D. Wood
Primary Examiner
Art Unit 1755

edw